Designer Drugs

Adverse Effects
of
Spice and Bath Salts

Spice Products

Spice
Synthetic Marijuana-Like Compounds

- Sold as herbal incense – not for human consumption
- Products contain various synthetic cannabinoid compounds (compounds that produce marijuana-like effects) - some are much more potent than marijuana
- According to the DEA, placement of these synthetic cannabinoids into Schedule I of the CSA was necessary to avoid an imminent hazard to the public safety. This action imposes criminal sanctions and regulatory controls on the manufacture, distribution, possession, importation, and exportation of these synthetic cannabinoids.

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Part 1308

[Docket No. DEA–345N]

Schedules of Controlled Substances: Temporary Placement of Five Synthetic Cannabinoids Into Schedule I

AGENCY: Drug Enforcement Administration (DEA), U.S. Department of Justice.

ACTION: Notice of Intent.

SUMMARY: The Deputy Administrator of the Drug Enforcement Administration (DEA) is issuing this notice of intent to temporarily place five synthetic cannabinoids into the Controlled Substances Act (CSA) pursuant to the temporary scheduling provisions under 21 U.S.C. 811(h) of the CSA. The substances are 1-pentyl-3-(1-naphthoyl)indole (JWH–018), 1-butyl-3-(1-naphthoyl)indole (JWH–073), 1-[2-(4-morpholinyl)ethyl]-3-(1-naphthoyl)indole (JWH–200), 5-(1,1-dimethylheptyl)-2-[(1*R*,3*S*)-3-hydroxycyclohexyl]-phenol (CP–47,497), and 5-(1,1-dimethyloctyl)-2-[(1*R*,3*S*)-3-hydroxycyclohexyl]-phenol (cannabicyclohexanol; CP–47,497 C8 homologue). This intended action is

01 March 2011: 5 Substances Temporarily Scheduled for One Year

Included in the DEA Notice:

JWH-018
JWH-073
JWH-200
CP-47,497
CP-47,497 C8 homologue

HU-210 previously scheduled

Only 6 compounds on the DEA list: There are 100+ of these synthetic compounds-
“A Moving Target”

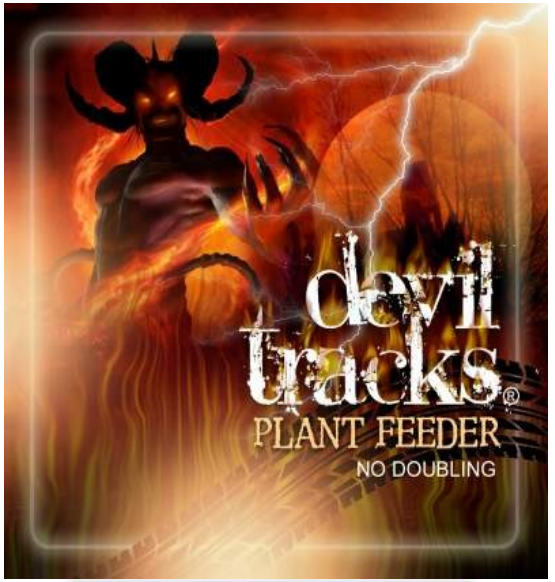
Spice
Adverse Effects

- Used for its psychoactive and hallucinogenic effect
- Some reports of relaxation and sedation, but less euphoria than cannabis
- Report of rapid tolerance leading to increased dose
- Withdrawal, including “internal unrest, tremor, palpitation, insomnia, headache, diarrhea, nausea, vomiting”
- Report of “imperative voices (being told to act a certain way) as well as recurrent paranoid hallucinations”
- Report of tachycardia and loss of consciousness

- Not FDA approved for human consumption
- No oversight of manufacturing process
- Could have multiple chemicals with unknown potency mixed with herbs
- 5-200x more potent than THC in marijuana
- Psychotic symptoms

Toxicology Letters 197 (2010) 157-162.
Navy Times News, 06 June 2011, Psych Resident: Spice’s Effects could be Serious, Long-Lasting

Bath Salts / Plant Food Products



Mephedrone (4-methylmethcathinone)

- Present in products marketed as plant food and bath salts – not for human consumption

- Chemically related to amphetamine

- Effects similar to Ecstasy reported - euphoria, well-being, increased alertness

- Widespread use in the UK

- Not scheduled in the US

Mephedrone Adverse Effects

- Intense alertness, euphoria
- Empathy, talkativeness
- Intense sensory input
- Sexual arousal
- Perceptual distortions
- Hallucinations
- Severe paranoia
- Aggression
- Panic attacks

- Headache, tremors, blurred vision, seizures
- Anxiety, agitation, aggression, depression, psychosis
- Tachycardia, elevated BP, chest pain
- Body temperature lability
- Nausea, vomiting, diarrhea
- Renal dysfunction, urinary retention

Psychopharmacology, DOI: 10.2007/s00213-010-2070-x. Published online 12 Nov 2010.
U.S. DOJ DEA. Office of Diversion Control. Accessed at http://www.deadiversion.usdoj.gov/drugs_concern/mephedrone.htm

MDPV (methylenedioxypyrovalerone)

- Present in products marketed as bath salts and plant food – not for human consumption
- Pure white to light brown clumpy powder
- Chemically related to amphetamine – very strong stimulant
- Effects similar to cocaine and amphetamines

MDPV
Adverse Effects

- Rapid heartbeat
- High blood pressure
- Insomnia
- Stomach cramps
- Grinding teeth
- Increased body temperature, chills, sweating
- Pupil dilation
- Headache
- Bloodshot eyes
- Kidney pain
- Ringing in the ears
- Dizziness
- Overstimulation
- Breathing difficulty
- Agitation
- Panic attacks

From Wikipedia

MDPV
Case Reports

- Few published case reports
  - Incoherent self-employed chemist arrested in March 2008 for DWI[1]
  - Acute liver failure in 28 year-old male[2]
- Numerous anecdotal reports from Emergency Departments for adolescents with acute psychotic events who admitted to taking MDPV, aka Bath Salts
- 35 patients, in MI, presented to ED from Nov 10-Mar 11
- Toxicity symptoms; agitation, tachycardia, delusions/hallucinations. 17 patients hospitalized and 1 death[3]
- Multiple substances may have been used; plus manufacturing practices could have hazardous contaminants along with MDPV

[1]Microgram Journal, Vol 7, No 1 (March 2010); accessed at http://usdoj.gov
[2]Ir J Med Sci, Vol 180 (Nov 2010), No 1, 263-264
[3]Morbidity and Mortality Weekly Report, Vol. 60, No. 19, (May 20, 2011), 624-627.